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14. ABSTRACT For the UC Merced NMR Instrumentation Acquisition proposal, a new 400 MHz and an upgraded 500 MHz NMR have been delivered, installed, and incorporated into research and two lab courses. While no results from these instruments have been published yet, data acquired on these instruments has been used in a Ph.D. student's dissertation, and approximately 50 undergraduate students have used the instrument for coursework.				
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## Report Title

Final Report: UC Merced NMR Instrumentation Acquisition

### ABSTRACT

For the UC Merced NMR Instrumentation Acquisition proposal, a new 400 MHz and an upgraded 500 MHz NMR have been delivered, installed, and incorporated into research and two lab courses. While no results from these instruments have been published yet, data acquired on these instruments has been used in a Ph.D. student's dissertation, and approximately 50 undergraduate students have used the instrument for coursework.

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**Enter List of papers submitted or published that acknowledge ARO support from the start of the project to the date of this printing. List the papers, including journal references, in the following categories:**

**(a) Papers published in peer-reviewed journals (N/A for none)**

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Paper

**TOTAL:**

**Number of Papers published in non peer-reviewed journals:**

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**(c) Presentations**

Number of Presentations: 0.00

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**Non Peer-Reviewed Conference Proceeding publications (other than abstracts):**

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Number of Non Peer-Reviewed Conference Proceeding publications (other than abstracts):

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Number of Peer-Reviewed Conference Proceeding publications (other than abstracts):

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Number of Manuscripts:

Books

Received      Book

TOTAL:

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TOTAL:

Patents Submitted

Patents Awarded

Awards

Graduate Students

<u>NAME</u>	<u>PERCENT_SUPPORTED</u>
FTE Equivalent:	
Total Number:	

Names of Post Doctorates

<u>NAME</u>	<u>PERCENT_SUPPORTED</u>
FTE Equivalent:	
Total Number:	

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### Names of Faculty Supported

NAME

PERCENT SUPPORTED

**FTE Equivalent:**

**Total Number:**

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### Names of Under Graduate students supported

NAME

PERCENT SUPPORTED

**FTE Equivalent:**

**Total Number:**

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The number of undergraduates funded by this agreement who graduated during this period: ..... 0.00

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### Names of Personnel receiving masters degrees

NAME

**Total Number:**

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### Names of personnel receiving PHDs

NAME

Luke Reed (0)

**Total Number:**

1

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### Names of other research staff

NAME

PERCENT SUPPORTED

**FTE Equivalent:**

**Total Number:**

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Sub Contractors (DD882)

## **Inventions (DD882)**

### **Scientific Progress**

The instruments were delivered in December, and installation was completed and signed off in February. Since that time, the NMRs have been incorporated into two upper-division labs (the physical chemistry and the inorganic chemistry labs) and a lower-division lab (organic chemistry). In addition, both instruments have seen heavy use by organic chemists for routine characterization, although no results have been published yet, and a physical chemist has used the instruments to study ion diffusion, with some results published in the attached dissertation.

### **Technology Transfer**